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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,399	04/19/2004	Masaaki Takabe	09812.0401-00000	3120

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EXAMINER	
ROSWELL, MICHAEL	
ART UNIT	PAPER NUMBER
2173	
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06/22/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.**	**Applicant(s)**	
	10/827,399	TAKABE ET AL.	
	Examiner	**Art Unit**	
	MICHAEL ROSWELL	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 March 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,5 and 8-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,5 and 8-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office action is in response to the amendment to the claims filed 22 March 2010.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 4, 5 and 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen (US Patent 7,036,091) in view of Mitchell et al (US Patent 6,628,304), hereinafter Mitchell, further in view of Robbins (US Patent 6,819,344 B2), further in view of Torres (US Patent 5,317,687), further in view of Vayda et al (US Patent 5,745,717), hereinafter Vayda, further in view of Os et al (US Patent 6,781,610), hereinafter Os, and further in view of Tanaka et al (US Patent 6,544,123), hereinafter Tanaka.

As to independent claim 1, Nguyen teaches: displaying on a display device a first ring on a picture screen and primary icons at predetermined intervals on the first ring (i.e. ring as menu 420, with icons as options 424, see col. 7, lines 64-67 on TV 104); causing rotation, by a processor, to the primary icons on the first ring while maintaining an order of arrangement (i.e. see col. 8, lines 13-23); highlighting a first icon of the primary icons while also displaying a second icon of the primary icons corresponding to an operation, and highlighting a second icon corresponding to an operation (see col. 8 lines 29-40, and seen in Fig. 4), and selecting the highlighted second icon at (col. 8, lines 29-33).

Nguyen fails to explicitly teach the second icon being surrounded by a second ring that does not surround the first icon, wherein the second ring that surrounds the second icon is of a smaller diameter than the first ring, wherein the first ring and second ring are different levels of a

hierarchical menu, and adding second icons, upon selecting the highlighted icon, at predetermined intervals on the second ring, the second icons corresponding to secondary operations of the operation.

Mitchell teaches a method and apparatus for navigating hierarchical structures, similar to that of Nguyen. Furthermore, Mitchell teaches a second icon being surrounded by a second ring that does not surround the first icon (taught as the hierarchical ring structures of Figs. 3-6, that include selectable icons surrounding each larger icon, at col. 8, lines 1-34), wherein the second ring that surrounds the second icon is of a smaller diameter than the first rung (as can be seen in Figs. 3-6), wherein the first ring and second ring are different levels of a hierarchical menu (taught as the parent node/child node relationships of the hierarchy, at col. 8, lines 20-34), and adding second icons, upon selecting the highlighted icon, at predetermined intervals on the second ring, the second icons corresponding to secondary operations of the operation (taught as the displaying of previously not displayed child icons upon selection of a node, at col. 9, line 55 through col. 10, line 10).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Nguyen and Mitchell before him at the time the invention was made to modify the hierarchical ring menu of Nguyen to include the smaller second ring of Mitchell. One would have been motivated to make such a combination for the advantage of graphically representing as much of a hierarchy as possible to facilitate user manipulation. See Mitchell, col. 3, lines 16-32.

Nguyen and Mitchell fail to explicitly teach wherein said icon displayed at a specific position of said ring is displayed larger than the other icons positioned on the ring. Robbins teaches wherein said icon displayed at a specific position of said ring is displayed larger than the other icons positioned on the ring (i.e. enlarging by not occluding a selected segment

through warping controls, by way of graphical manipulations such as the “fish-eye” technique, at col. 5, lines 35-38).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teaching of Nguyen, Mitchell and Robbins before him at the time the invention was made, to modify the displaying of selected icons as taught by Nguyen to include displaying a larger icon that is selected as taught by Robbins with the motivation being to “examine details associated with the selected image,” (see col. 6, lines 15-20, ‘Robbins).

However, Nguyen, Mitchell, and Robbins, fail to explicitly teach removing detail from the first icons after adding the second icons.

Torres teaches a system of selecting menu items represented by icons similar to that of Nguyen, Mitchell, and Robbins. Furthermore, Torres teaches altering the graphical representation of an icon or related graphical element based on its selection, at col. 4, lines 23-42. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to include the graphical alteration of Torres, similar to the claimed removing detail from a selected icon, into the system of Nguyen, Mitchell, and Robbins. Applicant has not disclosed that removing detail from the first icons after adding the second icons provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the icon attribute alteration of Torres because the icon alteration in Torres and in the instant application both are a result of user selection of an icon or graphical element and are both used to indicate such a selection.

One would have been motivated to make such a combination for the advantage of easily indicating to a user which icons or elements in a hierarchy have been previously selected.

However, Nguyen, Mitchell, Robbins, and Torres fail to explicitly teach automatically centering the selected icon on the picture screen.

Vayda teaches a ring menu system similar to that of Nguyen, Mitchell, Robbins, and Torres (see Vayda, Fig. 11). Furthermore, Vayda teaches automatically centering the selected icon on the picture screen, taught as the positioning of the item highlighter in the focus or default position of col. 13, lines 18-23. While Vayda discloses at col. 6, lines 46-48 that the focus position need not be the center of an object, this passage clearly indicates that a focus position as centering is commonly utilized in the art and not out of the realm of Vayda.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Nguyen, Mitchell, Robbins, Torres and Vayda before him at the time the invention was made to modify the ring menu system of Nguyen, Mitchell, Robbins, and Torres to include the full-screen enlargement of Vayda. One would have been motivated to make such a combination for the advantage of allowing a user to more efficiently manipulate the user interface. See Vayda, col. 1, lines 46-49.

Nguyen, Mitchell, Robbins, Torres, and Vayda fail to explicitly teach reducing a size of the primary icons after adding the secondary icons. Os teaches an animated display similar to that of Nguyen, Mitchell, Robbins, Torres, and Vayda. Furthermore, Os teaches a display of secondary selection areas (menu items) that includes reducing the size of previously displayed first selection areas, at col. 2, line 57 through col. 3, line 17.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Nguyen, Mitchell, Robbins, Torres, Vayda and Os before him at the time the invention was made to modify the interface of Nguyen, Mitchell, Robbins, Torres, and Vayda to include the unselected menu size reduction feature of Os, in order to obtain a menu system that allows for reducing a size of the primary icons after adding the secondary icons.

One would have been motivated to make such a combination for the advantage of creating appropriate space on a display space for bettering the display of information of interest. See Os, col. 3, lines 7-10, and col. 2, lines 13-15.

Nguyen, Mitchell, Robbins, Torres, Vayda, and Os fail to explicitly teach automatically reducing a size of the remaining primary icons, the reduction in size of any one remaining primary icon determined in accordance with a number of predetermined intervals on the first ring between the any one remaining primary icon and the highlighted second icon.

Tanaka teaches a menu system utilizing two icon rings similar to the system of Nguyen, Mitchell, Robbins, Torres, Vayda, and Os. Furthermore, Tanaka teaches displayed primary icons being reduced in size in accordance with a distance interval from a remaining primary icon and a highlighted second icon (as can be seen in the example of Fig. 43 and Fig. 56, where primary lettered icon ring has “A” selected, and secondary numerical icon ring has “1” selected. The further primary icons “B” and “C” are reduced in size based on a difference interval (i.e. “B” is closer to “A” than “C”, and is thus displayed larger, as in Fig. 56) from the selected icons.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Mitchell, Robbins, Torres, Vayda, Os, and Tanaka before him at the time the invention was made to modify the menu system of Mitchell, Robbins, Torres, Vayda, and Os to include the primary icon size reduction of Tanaka, in order to obtain a menu system that allows for automatically reducing a size of the remaining primary icons, the reduction in size of any one remaining primary icon determined in accordance with a number of predetermined intervals on the first ring between the any one remaining primary icon and the highlighted second icon.. One would have been motivated to make such a combination for the advantage of allowing a user to easily input desired commands from a great number of available commands on a display. See Tanaka, col. 1, lines 55-67.

Independent claim 5 further recites enlarging the second ring. Mitchell teaches a zooming feature upon selection of a hierarchical node, at col. 9, lines 55-65, which inherently enlarges the second ring on the display. Independent claim 5 further recites similar limitations as independent claim 1 and as such is similarly rejected.

As to claims 4 and 8, Nguyen teaches a display method according to claim 1, wherein one of the primary icons displayed on the first ring corresponds to the operation of returning a display including a previous menu layer (i.e. fade in or out as needed, see col. 9 lines 56-61).

Regarding claims 9 and 10, Nguyen can be shown to teach highlighting the first ring when performing selections on the first ring, taught by the arrows of Fig. 7-9.

Regarding claim 11 and 13, Robbins teaches the displayed primary icons of the first ring that are closer to the highlighted icon being larger that the displayed primary icons of the first ring that are further from the highlighted icon, taught as the use of a "fisheye" technique focused on a selected icon, at col. 5, lines 35-38, which is well-known to warp an image such that the focused part is enlarged relative to portions of the image further from the focused portion.

Regarding claim 12 and 14, Vayda teaches removing the remaining plurality of icons on the first ring from the picture screen, at col. 13, lines 18-23.

Response to Arguments

Applicant's arguments with respect to claims 1, 4, 5, and 8-14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL ROSWELL whose telephone number is (571)272-4055. The examiner can normally be reached on 9:30 - 6:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Kieu Vu can be reached on (571) 272-4057. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael Roswell
6/14/2010

/Kieu Vu/
Supervisory Patent Examiner, Art Unit 2173